-Ag 8/1,3:8/4

ISSN 0097-0905

10.819

GOVERNMENT PUBLICATIONS
RECEIVED

OCT 1 4 1983

UNIVERSITY LIBRARY
UNIVERSITY OF CONNECTICUT

1982 INSPECTIONS OF

## FERTILIZER PESTICIDE AND FEED PRODUCTS

J. GORDON HANNA

STATE

BULLETIN 814 • EXPERIMENT STATION

THE CONNECTICUT AGRICULTURAL NEW HAVEN • AUGUST 1983

Digitized by the Internet Archive in 2011 with funding from LYRASIS members and Sloan Foundation

http://www.archive.org/details/inspectionsoffer814conn

## 1982 INSPECTIONS OF

## FERTILIZER, PESTICIDE AND FEED PRODUCTS

Data obtained by chemical analysis of officially collected samples of commercial feeds, fertilizers and pesticide formulations are contained in this report. The tables show the number of samples from each manufacturer (in parenthesis), the number of determinations made for each guaranteed ingredient, the number of deficiencies, and the average percent of claims for each component.

The deficiencies noted for feed samples are based on the permitted variations recommended by the Association of American Feed Control Officials, the investigational allowances for fertilizers are those of the Association of American Plant Food Control Officials, and the permissive guarantee variations suggested by the Association of American Pesticide Control Officials are used for pesticide formulations.

Data for 789 samples of feed representing 72 manufacturers, 155 samples of fertilizer representing 14 manufacturers and 282 samples of pesticide representing 63 manufacturers are summarized.

The feed and fertilizer laws are administered by the Commissioner of Agriculture. The pesticide law is under the direction of the Commissioner of Environmental Protection.

Analytical work was by M. Fuzesi, W. Glowa, R. Hastings, M. A. Illig, H. Kocaba, M. Pyles, and S. Squires. The report was assembled and typed by S. Mayer.

J. Gordon Hanna, Chief Chemist

	Number of Claims		Number Not Met			Average % of Claims				
Feed Manufacturer	Protein	Fat	Fiber	Total	Protein	Fat	Fiber	Protein	Fat	Fiber
Agway, Inc. (125) Allen Products (1) Alliance Foods (1) Allied Mills (1) American Crystal Sugar (2) A & R Pet Food (3)	125 1 1 1 2 3	125 1 1 1 2 3	125 1 1 1 2 3	375 3 3 3 6 9	1 0 0 0 0	0 0 0 0 0	0 0 0 0 0	108 136 125 105 120 104	143 161 151 153 138 140	61 17 79 76 84 81
Beacon Milling (17) Best Feeds & Farm Supplies (1) BiAgri (5) Binzo, Ltd (1) Blue Star Foods (8) Budget Pet Foods (2)	17 1 5 1 8 2	17 1 5 1 8 2	17 1 5 1 8 2	51 3 15 3 24 6	1 0 2 0 0	0 0 1 0 0	0 0 1 0 0	103 124 89 101 127 147	142 177 91 100 161 95	66 28 103 73 67 32
Cadillac Pet Foods (1) Calo Pet Foods (7) Carnation (42) Cat Life Packing (1) Central Connecticut Co-op (6) Champion Valley Farms (16) CHB Foods (1) Con Agra Pet Div. (2)	1 7 42 1 6 16 1	1 7 42 1 6 16 11 2	1 7 42 1 6 16 1	3 21 126 3 18 48 3 6	0 0 2 0 1 0 0	0 0 1 0 0 1 0	0 0 0 0 0 0	107 113 113 126 101 127 137	127 133 154 133 130 112 122 108	56 32 48 55 66 52 37 36
Derby Feed (4)	4	4	4	12	0	0	0	106	184	53
8 in 1 Pet Products (2)	2	2	2	6	0	0	0	133	158	67
Federated Foods (5) First National Stores (5) Foster Canning (6)	5 5 6	5 5 6	5 5 6	15 15 18	0 0 0	0 0 0	0 0 0	118 129 153	139 162 177	66 57 47
General Foods (6) Roy Goff (2) Grand Union (2) Great A & P Tea Co. (5) Gro Kote (2)	6 2 2 5 2	6 2 2 5 2	6 2 2 5 2	18 6 6 15 6	0 0 0 0	0 0 0 0	0 0 0 0	109 97 150 118 107	114 210 147 170 182	40 38 54 91 143
Hartz Mountain (9) Health Valley Natural Food (4) Hills Div., Raviana Foods (4)	9 4 4	9 4 4	9 4 4	27 12 12	0 0 0	0 0 0	0 0 0	114 112 100	140 228 126	57 31 72
Independent Grocers Alliance (2) International Multifoods (1)	2 1	2 1	2 1	6 3	0 0	0 0	0 0	119 104	109 103	25 84
I. F. Joseph (1)	1	0	1	2	0	-	0	110	-	74
Kitty Food (6) K & L Feed Mill (29)	6 29	6 29	6 29	18 87	0 7	0 2	0 0	130 99	151 122	54 60
Laddie Boy Pet Food (6) Lipton Pet Foods (3)	6 3	6 3	6 3	18 9	0 0	0 0	0 0	125 134	191 162	55 44
Marlboro Products (6) Martin's Feed Mills (1) Milk Specialties (1) Monitor Sugar (1) Murray Elevators (12)	6 1 1 1 12	6 1 1 1 12	6 1 1 1 12	18 3 3 3 36	0 0 0 0	0 1 0 0	0 0 0 0	124 103 102 118 104	161 89 109 287 165	66 63 100 72 26
Old Mother Hubbard (4)	4	4	4	12	2	0	0	97	108	80
Perk Foods (5) Pro Pet (6)	5 6	5 6	5 6	15 18	0 0	0 0	0	170 107	190 162	48 34
Quaker Oats (3)	3	3	3	9	0	0	0	113	153	51
Ralston Purina (52) Rangen (2) Redi International (1)	52 2 1	52 2 1	52 2 1	156 6 3	2 0 0	0 0 0	0 0 0	114 112 103	177 142 148	58 26 3

	Nun	ber c	f Claim	ns_	Number	Not	Met	Average	% of	Claims
Feed Manufacturer	Protein	Fat	Fiber	Total	Protein	Fat	Fiber	Protein	Fat	Fiber
The Reward Co. (1)	1	1	1	3	0	0	0	137	131	53
Ross-Wells/Beatrile (1)	1	1	1	3	0	0	0	101	108	14
Rytman Grain (7)	7	7	7	21	1	5	1	107	81	82
Shur Fine Eastern (5)	5	5	5	15	0	1	0	123	139	76
Star Kist (19)	19	19	19	57	0	2	0	127	144	28
Stop & Shop (15)	15	15	15	45	1	0	0	117	182	51
Strongheart Products (2)	2	2	2	6	0	0	0	150	156	49
Sunflower (2)	2	2	2	6	0	0	0	136	193	44
Superior Pet Products (1)	1	1	1	3	1	0	0	83	100	66
Sweet Life Products (8)	8	8	8	24	0	0	0	113	146	49
Tetra Werke (1)	1	1	1	3	0	0	0	104	167	26
United Co-op Farmers (86)	86	86	86	258	1	1	4	105	138	80
Universal Cooperative (3)	3	3	3	9	0	0	0	106	162	39
Vitakraft (2)	2	2	2	6	0	0	0	115	114	77
Wakefern Food (9)	9	9	9	27	0	0	0	112	165	39
Warner-Lambert (1)	1	1	1	3	0	1	0	124	51	49
Wm. S. Warren & Son (10)	10	10	10	30	0	0	0	106	146	73
Wayne, Continental Grain (13)	13	13	13	39	0	1	0	113	124	64
H. K. Webster (160)	160	160	160	480	1	1	1	109	123	70
Ziegler Bros (2)	2	2	2	6	0	0	0	104	193	37
(789)	789	788	789	2366	23	19	7	111	142	62

Percent of Claims Deficient: 2.1

		Number of Cla	aims	Num	ber Not Met	Avera	ge % of Clai
Fertilizer Manufacturer	N	P <sub>2</sub> 0 <sub>5</sub> + K <sub>2</sub> 0	Total	N	P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub> + K <sub>2</sub> O
Agrico (14)	14	26	40	1	18	104	84
Agricultural Products (3)	2	6	8	1	1	93	95
Agway (2)	24	56	80	_1	3	104	109
Cadwell & Jones (2)	20	40	60	5	15	96	94
Clinton Nursery (7)	7	14	21	0	0	108	124
Espoma Co. (3)	3	6	9	0	0	104	124
Estech General (37)	36	74	110	15	27	94	104
Fer Mel (1)	1	2	3	0	0	99	110
C. Hart Seed (2)	2	4	6	0	1	100	109
Lebanon Chemical (4)	4	8	12	0	0	101	104
Lofts Pedigreed Seed Co. (1)	1	2	3	0	0	98	120
John D. Lyon (1)	1	2	3	0	0	98	96
01d Fox (29)	27	56	83	9	17	98	104
0. M. Scott (5)	5	10	15	1	0	98	106
(155)	147	306	453	33	82	99	103

Percent of Claims Deficient: 25

Mixed Fertilizer Distribution

July 1, 1981 - June 30, 1982

Tonnages of Fertilizer Materials and Mixed Fertilizers Purchased During the Period of July 1, 1981 - June 30, 1982

Grade	Tons	Chemical Nitrogen	
		Ammonium nitrate	172
0-10-40	158	Ammonium sulfate	10
0-15-30	207	Calcium nitrate	125
0-25-25	47	Nitrogen solutions	167
4-6-4	5922	Sodium nitrate	129
5-10-5	1366	Urea	3537
		Ureaform	59
5-10-10	2238	Other nitrogen materials	12
5-20-20	46		${4211}$
7-7-7	41		1444
8-16-16	50	Phosphates	
10-6-4	2829	Ammonium phosphate	1318
10-0-4	202)	Bonemeal	119
10 10 10	5711		18
10-10-10		Phosphate rock	
10-20-10	676	Superphosphate 20%	72
10-20-20	470	Superphosphate 40%	490
12-4-8	136	Other phosphate materials	8
14-14-14	51		2025
15-8-12	934	Potash	
15-10-10	1544	Muriate of potash	2333
15-15-15	649	Potassium carbonate	6
15-30-15	76	Potassium magnesium sulfate	7
16-8-8	58	Potassium nitrate	34
10 0 0	30	Potassium sulfate	10
20-5-10	484	Other potassium materials	4
	153	other potassium materials	2394
20-10-15	_		2374
20-12-8	53	National One and a	
20-20-20	67	Natural Organics	6
24-12-18	257	Blood, dried	6
		Cottonseed meal	172
25-3-3	371	Linseed meal	6
25-3-5	123	Manure	3981
25-5 <b>-</b> 10	261	Sewage	456
25-10-10	34	Tankage	1
26-4-6	183		4622
27-3-3	1218	Secondary and micronutrients	
30-10-10	29	Aluminum	2
30-10-10		Borax	26
	26442	Gypsum	82
	20442	Iron	1
77	10767		2
Miscellaneous	19767	Lime	
		Magnesium	62
Total	46209	Zinc	$\frac{1}{176}$
			1/0
		Total	13,428
		Commercial mixtures	46,209
		Total	59,637
		10041	,

Pesticide Manufacturer	Pesticide	Number of Claims	Number Not Met	Average % of Claims
J & I Adikes (1)	Methoxychlor	1	0	98
Agway (20)	Amitrole Captan	1 2	0	104 105
	Carbaryl 2,4-D	4 1	0 0	105 99
	Diazinon 2-(2,4-Dichlorophenoxy)-	3	0	105
	propionic acid Kelthane	$rac{1}{1}$	0 0	102 133
	Malathion	3	0	105
	Meta-Systox	1	0	100
	Methoxychlor	4	0	101
	Phenothrin	1 1	0 0	115
	Piperonyl butoxide Prometon	1	0	100 101
	Pyrethrins	1	0	105
	Resmethrin	1	Ö	103
	Rotenone	1	Ō	102
	Simazine	1	0	113
	Tetramethrin	1	0	114
	Zinc phosphide	1	1	74
Bell Laboratories, Inc. (1)	Zinc phosphide	1	0	133
Black Leaf Products (11)	Captan	2	0	98
	Carbaryl	1	0	100
	Copper	1	1	91
	2,4-D	1	0	97
	Diazinon	1	0	98
	Dicamba	1	0	104
	Kelthane	2 1	0	98
	Lindane Malathion	4	0	99 103
	Maneb	1	0	98
	Meta Systox	1	0	100
	Methoxychlor	4	Ő	99
Bonide Chemical Co. (24)	Aspon	1	0	102
	Banvel	2 1	0	106
	Baygon Benomyl	1	0 0	105 102
	Butoxythiocyano diethyl ether	1	0	106
	Captain	2	ő	103
	Carbaryl	4	Ö	107
	Cygon	1	0	97
	2,4-D	1	0	111
	Diazinon	3	0	108
	Disyston	1	0	105
	Dursban	1	0	99
	Imidan	1	0	103
	Kelthane	2	0	100
	Malathion	4 4	0 0	104 101
	Methoxychlor Petroleum oil	1	0	95
	Thuram	2	ő	101
	Zinc phosphide	1	Ö	101
Ced-o-Products Corp. (1)	Kerosene	1	0	191
Central Conn. Co-op Farmers Exchange, Inc.	Larvadex	1	1	64
C-H Products Corp. (1)	N-Octylbicycloheptene	7	0	0.7
	dicarboximide	1	0 0	97 98
	Piperonyl butoxide Pyrethrins	$\frac{1}{1}$	0	98 105

Pesticide Manufacturer	Pesticide	Number of Claims	Number Not Met	Average % of Claims
Chemical Industries, Inc. (1)	Diazinon Pyrethrins	1 1	0 0	104 101
Chevron Chemical Co. (32)	Acephate	3	0	101
	Ammonium sulfamate	1	0	102
	Baygon	2	0	106
	Captan	3	1	117
	Carbary1	2	0	109
	Chlorothalonil	1	0	103
	Cyhexatin	1	0	103
	2,4-D	1	0	101
	Dacthal	1	0	99
	Diazinon	3	0	99
	Folpet	2	0	108
	Funginex	1	0	117
	Kelthane	3	0	102
	Lindane	1	0	100
	Malathion	3	1	95
	MCPP	2 1	0	99
	Methoxychlor Orthene	1	0 0	100
	Prometon	1	0	98
	Piperonyl butoxide	1	0	106 93
	Pyrethrins	2	0	98
	Resmethrin	4	Ö	100
	Rotenone	2	Ö	105
	Sulfur	1	Ö	102
	Triforine	1	Ö	102
Ciba-Geigy Corp. (8)	N-Cyclopropy1-1,3,5-triazine-			
olba delgy colp. (o)	2,4,6-triamine	2	0	93
	2,4-D	1	ő	102
	Diazinon	4	Ö	106
	Dicamba	i	Ö	100
	MCPP	1	Ö	106
	Pentachlorophenol	1	0	120
	Piperonyl butoxide	2	0	95
	Prometon	1	0	101
	Pyrethrins	1	0	112
Clinipad Corp. (1)	Alkyldimethylbenzylammonium chlorid	e 1	0	138
Connecticut Aerosols, Inc. (38)	Alkyldimethylbenzylammonium chlorid Alkyldimethylethylbenzylammonium	e 3	0	122
	chloride	3	0	122
	d-trans-Allethrin	10	2	99
	Baygon	6	1	91
	Chlorpyrifos	2	0	101
	<pre>2,2-Dichlorovinyldimethyl phosphate 2-(1-Methylethoxy) phenol methyl</pre>		0	104
	carbamate	3	1	85
	MGK	4	2	73
	N-Octylbicycloheptene dicarboximide		0	98
	Phenothrin	17	4	99
	o-Phenylphenol	1	1	52
	Piperonyl butoxide	7	2	87
	Pyrethrins	2	0	99
	Sodium hypochlorite	2	2	57
	Tetramethrin Vapona	12 1	3 0	93 95
Crystalabs, Inc. (1)	Alkyldimethylbenzylammonium chlorid	e 1	0	100
Dovol Industries (22)	Ponory 1	1	0	101
Dexol Industries (23)	Benomyl Carbaryl	1 4	0 0	101
	Copper	1	0	100
	Copper oleate	1	0	94
	Cycloheximide	1	0	93
	o, eronemande	_	J	,,

Pesticide Manufacturer	Pesticide	Number of Claims	Number Not Met	Average % of Claims
(Dexol Industries Continued)	Cygon	1	0	99
	2,4-D	1	0	103
	Diazinon	1	0	98
	Dicamba DiSyston	1	0 0	96
	Dursban	1 2	1	130 87
	Karathane	1	0	100
	Kelthane	3	0	99
	Malathion	1	0	102
	Maneb	1	0	108
	MCPP	1	0	98
	Mineral oil Nicotine	1 1	0 0	98
	Pyrethrins	1	0	114 100
	Piperonyl butoxide	1	ő	98
	Zineb	3	Ö	102
C. B. Dolge Co. (14)	Acids (hydrochloric, phosphoric and oxalic)	1	0	99
	Alkyldimethylbenzylammonium chloridalkyldimethylethylbenzylammonion		0	119
	chloride	1	0	104
	o-Benzyl-p-chlorophenol	3	1	77
	Malathion	1	0	101
	Monuron	1	0	103
	o-Phenylphenol	1	0	84
	Piperonyl butoxide Pyrethrins	4 4	0 0	100 101
Dragon Chemical Corp. (1)	Malathion	1	0	101
E. I. DuPont de Nemours & Co. (1)	0xamy1	1	0	105
Durvet, Inc. (1)	Zinc phosphide	1	0	139
J. T. Eaton & Co., Inc. (1)	2-Pivaly1-1,3-indandione	1	0	94
Evergreen Tree Service (1)	Sevin	1	0	82
Faesy & Besthoff (2)	Imidan	2	0	104
Farnam Co. (6)	Carbaryl	1	0	108
	DDVP	1	0	113
	N-Octylbicycloheptene dicarboximide		0	103
	Piperonyl butoxide	4 4	0 0	99 106
	Pyrethrins Rabon	1	0	103
Hopkins Agricultural Chemical Co. (1)	DDVP	1	0	106
Hofman Water Treating Co. (1)	Potassium N-methyl-dithio carbamate		0	176
Hub States Corp. (1)	N-(2-Quinoxalinyl)-sulfanilamide Warfarin	1 1	0	92 104
Huntington Laboratories, Inc. (1)	Quaternary compounds	1	0	109
S. C. Johnson & Son, Inc. (7)	Allethrin	3	0	97
	Baygon	2	0	111
	DDVP	1	0	108
	N,N-Diethyl-m-toluamide	1 1	0 0	108
	Piperonyl butoxide Resmethrin	3	0	98 133
	Tetramethrin	1	0	107
Kenco Chemical & Manufacturing	Durches	1	0	102
Corp. (1)	Dursban		0	103
Keystone Exterminating Co. (1)	Dursban	1	0	107

Pesticide Manufacturer	Pesticide	Number of Claims	Number Not Met	Average % of Claims
K-Mart Corp. (4)	Carbaryl 2,4-D	1 1	0 0	99 107
	Diazinon	1	0	102
	Dicamba	1	0	95
	Dursban	1	0	101
	MCPP	1	0	95
Lebanon Chemical Corp. (1)	Betasan	1	0	105
Masti Kure Products Co. (1)	Rotenone	1	0	98
Monsanto Corp. (1)	Glyphosate	1	0	100
Morgro Chemical Co. (1)	n-Pentylvalerate	1	0	99
Natra Pet, Inc. (3)	Baygon	1	1	68
, · · · · · · · · · · · · · · · · · · ·	N-Octylbicycloheptene dicarboximide	1	1	0
	Piperonyl butoxide	3	2	31
	Pyrethrins	3	2	32
Nott Manufacturing Co. (2)	Zinc phosphide	2	0	129
Nutrico Co. (1)	Dicamba	1	0	89
	Dichlorophenoxyacetic acid	1	0	96
	MCPP	1	0	89
Osmose Wood Preserving Co. of				
America (3)	Aldrin	1	0	97
	Sodium fluoride	2	0	99
	Sodium methyldithiocarbamate	1	0	100
Downste Charical Co. (/)	2,4-D	1	0	103
Parrott Chemical Co. (4)	Dichlone	1	0	94
	Dursban	1	0	94
	Malathion	1	0	107
	Methoxychlor	1	Ö	100
	Piperonyl butoxide	ī	ő	88
	Pyrethrins	1	Ö	96
	Sevin	1	0	102
Penguin-Down Co. (1)	Pyrethrins	1	0	94
Post Control Products of				
Pest Control Products of	Diazinon	1	0	101
Connecticut (2)	Piperonyl butoxide	1	0	98
	Pyrethrins	1	0	96
	Tyreenrins	-	Ü	70
Pharmacal Research Labs (2)	N-Octylbicycloheptene dicarboximide	1	0	96
	Piperonyl butoxide	2	0	96
	Pyrethrins	2	0	96
Polychem Corp. (1)	Quaternary Compounds	1	0	103
Pratt Gabriel Div., Miller Chemical				
& Fertilizer Corp. (15)	Benomy1	1	0	99
	Captan	1	0	101
	Carbaryl	1	0	104
	Chlordane	1	0	100
	2,4-D	1	0	104
	Diazinon	1	0	110
	Dimethoate	1	0	103
	DiSyston	1	0	130
	Kelthane	1	0	101
	Lindane	1	0	104
	Malathion	1	0	102
	Methoxychlor	2	0	100
	Petroleum oil	1	0	101
	Piperonyl butoxide	1	0	97

Pesticide Manufacturer	Pesticide	Number of Claims	Number Not Met	Average % of Claims
Pratt Gabriel Div., Miller Chemical				
& Fertilizer Corp continued	Prometon	1	0	106
•	Pyrethrins	1	0	102
	Resmethrin	1	0	102
	Rotenone	1	0	101
Residex Corp. (2)	Carbaryl	1	0	97
* * *	N-Octylbicycloheptene dicarboximide		Ō	90
	Piperonyl butoxide	2	0	97
	Pyrethrins	2	0	96
Rhodia, Inc. (1)	d-trans-Allethrin	1	0	98
(2)	Resmethrin	1	Ö	107
Dockie Islandravian Too (1)	Conner oulfate	1	0	0.0
Roebic Laboratories, Inc. (1)	Copper sulfate	1	0	96
Ron Cari Industries, Inc. (1)	3-(Acetonylbenzyl)-4-hydroxy			
	coumarin	1	0	97
Savol Bleach Co. (1)	Sodium hypochlorite	1	1	77
Science Products, Inc. (8)	Ponomy1	1	0	102
science Floducts, Inc. (6)	Benomyl Carbaryl	1 1	0	106
	DiSyston	1	0	130
	Kelthane	2	Ö	104
	Malathion	1	Ö	99
	Methoxychlor	1	0	100
	Rotenone	1	0	99
Seacoast Labs, Inc. (5)	Carbaryl	2	0	101
Seacoast Labs, Inc. (5)	Diazinon	1	0	110
	Malathion	ī	ő	99
	Methoxychlor	1	0	104
Stauffer Chemical Co. (1)	Eptam	1	0	90
Union Carbide Co. (1)	Carbaryl	1	0	101
Uniroyal Chemical Co. (4)	Chlorfurenol	1	ő	106
	Propargite	3	0	101
United Organics, Inc. (1)	1,2-Dibromo-2,4-dicyanobutane	1	0	98
	1,1 11010 1, 110, 1	-		
United States Chemical Corp. (2)	Alkylbenzylammonium chloride	1	0	103
Upjohn Co. (2)	2,6-Dichloro-4-nitroaniline	1	0	101
	N,N-Dimethyldiphenylacetamide	1	0	101
Waltham Chemical Co. (1)	Piperonyl butoxide	1	0	96
	Pyrethrins	1	Ō	117
Water Consultant Corp. (1)	Potassium-N-methyldithiocarbamate	1	0	105
Whitmire Research Laboratories (1)	Diazinon	1	0	109
Why Not Industries (1)	o-Isopropoxyphenylmethyl carbamate	1	0	101
mij not industries (1)	N-Octylbicycloheptene dicarboximid		0	97
	Piperonyl butoxide	1	0	98
	Pyrethrins	1	0	95
Woolfolk Chomical Works Tro (2)	Amitrol	1	0	99
Woolfolk Chemical Works, Inc. (2)	Ferbam	1	0	116
(202)		430	32	100
(282)		430	32	100

Percent of claims deficient: 7.5

		- 1
	1 (1)	
¥-		
	4	
349		
	<b>4</b>	
	3	
90		





